Ana García del Molino, PhD

I apply state of the art ML to multi-source inputs to achieve better user experience, efficient use of business data and ultimately increased revenue.
In return, I expect mentorship and to expand my business knowledge.

🗣 Spanish, English, French
✉ a.g.delmolino@gmail.com
📞 (+34) 675288835
🌐 garciadelmolino.github.io
GarciaDelMolino

-- **Who would you be hiring?** --

I'm used to embiguous and fast-paced environments, where the objectives and methodology need defining and continuous re-assessment. I deep dive, take ownership and deliver results. I have 5yr+ experience in Cloud Environments.
I love a good brainstorming. I am analytical and always down to assess the suitability of the proposed approaches, own or otherwise.
I enjoy working in multicultural and cross-domain teams. There's so much to learn from each other in such diverse environments.
After a decade in Asia, I'm currently on a road trip between India and Barcelona, where my next adventure shall begin mid-October.

Professional Experience

📍 ByteDance - TikTok, Singapore
📅 Sept 2020-Today
🕐 Computer Vision Scientist

Content Understanding for TikTok services.
ML Ops to support both Ecology and Business Integrity.
Mentoring of junior engineers and co-supervision of PhD candidates.

Technical counterpart for TikTok Live products and Business Integrity to define vision and deploy new features.

Main Responsabilities:

- Technical lead for code development and operations of online real-time services.
- Responsible for code development, release, and maintenance.
- Responsible for deployment high availability and fast response during outages.
- Point of contact for the infrastructure team to ensure smooth integration with new platform releases.
- Continuous communication with upstream teams to ensure data readiness in fast-paced environments
- Creation of reusable artifacts to enable fast deployments and new feature adoptions
- Model performance reporting with real-time dashboards for effective communication with stakeholders.

Product Ownership: content tagging; industry detection; risk assessment.

- Continuous improvement of the model design, training and benchmarking to support new business requirements.
- Pipeline design and maintenance for automated model iteration.
- Optimization of processes for data collection and labeling: data cleaning, deduplication and aggregation across multiple sources; automated collection of relevant training samples from the platform.

Full Cloud Environment:

- Datawarehouse workloads using hive (HSQL) similar to Redshift, Snowflake or Databricks.
- Big Data framework for ML pipelines and MLOps, similar to Glue and DataBricks.
- BI platforms for reporting and dashboarding, similar to Tableau, PowerBI or QuickSight.
- Streaming pipelines and content delivery with Kafka and Redis.
- ML development in Infrastructure as a Service (IaaS) and Platform as a Service (PaaS), similar to EMR, Sagemaker and Sagemaker Studio.

Key takeaways and demonstrated skills as per my internal evaluations:

- I have been creative to innovate and improve processes in ambiguous and undefined projects.
- I have been involved in very diverse projects with cross-functional teams, refining my versatility and driving my self-development.
- I have acquired solid business acumen. This allowed me to interlock highly technical teams and business stakeholders.
- With my technical know-how, I created and implemented methodologies for reusing data products, both across projects and teams.
- I have mentored and evaluated interns toward their transition to full-time employees.

Multimodal Classification · MLOps · Batch and Real-Time Data Processing · Async Processes and Development · Data Analytics and Dashboarding

Python · TensorFlow · PyTorch · HSQL · PySpark · Golang · Redis · Kafka · JavaScript

📍 BIGO Tech., Singapore
📅 April 2019-Aug 2020
🕐 Sr. AI Algorithm Engineer

DCNNs to predict PCA parameters for graphic 3D modeling.
GANs for face expression manipulation.
DCNN-based autoencoders and U-Nets for image and video refinement and style transfer.

VAE · GAN · Face Landmark Detection and Tracking · Style Transfer · 3D Rendering

Python · TensorFlow · PyTorch · C# · Blender

📍 gifs.com, Zurich
📅 Summer 2017
🕐 Research Consultant

Use of a deep ranking model with personalizable input to customize the highlight detection in videos.

Action Classification · Recommendation Systems · Pattern Recognition · Action Understanding

Python · TensorFlow · DataFrames · SQL · Prototyping

📍 I2R, A*STAR, Singapore
📅 2014-March 2019
🕐 Ph.D. Candidate
👤 Supervised by Joo-Hwee Lim

Visual Understanding and Personalization for an Optimal Recollection Experience

- Modeling of lifelog photo-stream sequences using LSTM networks, to detect daily activities and learn associations between life events.
- Use of conditional random fields and probabilistic inference for interactive video summarization with diversity and query-driven objectives.
- Use of image quality analysis and semantic retrieval techniques for query-based lifelog summarization.

Object Classification · Activity Recognition · Facial Recognition · Transfer Learning · Spatio-Temporal Learning with LSTM · Episodic Memory

MATLAB · Caffe · Python · TensorFlow · C++ · Prototyping

📍 National Inst. of Informatics, Tokyo
📅 2013
🕐 Research Intern

Extension of the Bag of Words instance search technique by geometric coding and quantization error compensation.

Obtect Recognition and Retrieval · SURF & SIFT Descriptors · Hamming Embedding · Bag of Words

MATLAB · C++ · OpenCV

Education and Languages

PhD. in Cognitive Systems and Visual Computing

⊙ School of Computer Science and Engineering
🗓 2015-2019

BSc. and MSc. in Telecomm Engineering

⊙ TelecommBCN (ETSETB)
🗓 2008-2013

🇪🇸 Native
🟨 Native
🇬🇧 Fluent
Proficient

Honors and Awards

Obra Social "La Caixa" 🗓 2014

Private fellowship to support postgraduate studies in North America and Asia-Pacific.

SINGA Scholarship 🗓 2015

Award given by A*STAR to international students to pursue their PhD at a Singapore University.

Publications

📄 Wang Hao, Guosheng Lin, **Ana Garcia del Molino**, Anran Wang, Zehuan Yuan, Chunyan Miao, and Jiashi Feng. 2022. ManiCLIP: Multi-Attribute Face Manipulation from Text. *arXiv preprint arXiv:2210.00445.*

📄 Qianli Xu, Fen Fang, **Ana Garcia del Molino**, Vigneshwaran Subbaraju, and Joo-Hwee Lim. 2021. Predicting Event Memorability from Contextual Visual Semantics. In *Advances in Neural Information Processing Systems.*

📄 **Ana Garcia del Molino**, Joo-Hwee Lim, and Ah-Hwee Tan. 2018. Predicting Visual Context for Unsupervised Event Segmentation in Continuous Photo-streams. In *Proceedings of the 26th ACM international conference on Multimedia (MM '18).*

📄 **Ana Garcia del Molino** and Michael Gygli. 2018. PHD-GIFs: Personalized Highlight Detection for Automatic GIF Creation. In *Proceedings of the 26th ACM international conference on Multimedia (MM '18).*

📄 **Ana Garcia del Molino**, Xavier Boix, Joo-Hwee Lim, and Ah-Hwee Tan. 2017. Active Video Summarization: Customized Summaries via On-line Interaction with the User. In *AAAI Conference on Artificial Intelligence.*

📄 **Ana Garcia del Molino**, Cheston Tan, Joo-Hwee Lim, and Ah-Hwee Tan. 2017. Summarization of Egocentric Videos: A Comprehensive Survey. In *IEEE Transactions on Human-Machine Systems, 47(1).*

📄 **Ana Garcia del Molino**, Bappaditya Mandal, Jie Lin, Joo Hwee Lim, Vigneshwaran Subbaraju, Vijay Chandrasekhar. 2017. VC-I2R@ ImageCLEF2017: Ensemble of Deep Learned Features for Lifelog Video Summarization. In *CLEF working notes.*

📄 Qianli Xu, Vigneshwaran Subbaraju, **Ana Garcia del Molino**, Jie Lin, Fen Fang, Joo-Hwee Lim, Liyuan Li, Vijay Chandrasekhar. 2017. Visualizing Personal Lifelog Data for Deeper Insights at the *NTCIR-13 Lifelog-2 Task.*

📄 Jie Lin, **Ana Garcia del Molino**, Qianli Xu, Fen Fang, Vigneshwaran Subbaraju, Joo-Hwee Lim, Liyuan Li, Vijay Chandrasekhar. 2017. VCI2R at the *NTCIR-13 Lifelog-2 Lifelog Semantic Access Task.*

📄 **Ana Garcia del Molino**, Qianli Xu, Joo-Hwee Lim. 2016. Describing lifelogs with convolutional neural networks: A comparative study. In *Proceedings of the first Workshop on Lifelogging Tools and Applications.*

📄 **Ana Garcia del Molino**. 2016. First Person View Video Summarization Subject to the User Needs. In *Proceedings of the 24th ACM international conference on Multimedia (MM'16).*

📄 **Ana Garcia del Molino**, Bappaditya Mandal, Liyuan Li, Lim Joo Hwee. 2015. Organizing and retrieving episodic memories from first person view. In *IEEE International Conference on Multimedia & Expo Workshops (ICMEW).*

(Check all my publications in my Scholar profile)